Transmission Business Line (TBL)
Business Practice

ENERGY IMBALANCE SERVICE

For the OATT effective October 1, 2001
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This revision makes changes to Section II. A., B., and C., and Section III to clarify procedures for Transmission Customers who have purchased a Slice product from the Bonneville Power Administration's Power Business Line (BPAP) to self-supply or third party provide Energy Imbalance using their share of the Slice Output and to establish provisions to notify customers of strikes and to waive strikes in appropriate circumstances.

I. Energy Imbalance Service

A. Energy Imbalance

1. Energy Imbalance is an Ancillary Service taken by Transmission Customers with loads in the BPAT Control Area when there is a difference between hourly actual energy delivered to a load and the hourly energy scheduled to that load. The treatment of this deviation between scheduled and actual loads depends upon whether the Energy Imbalance occurs within the Energy Imbalance deviation band or outside the Energy Imbalance deviation band or is Intentional Deviation

2. Transmission Customers are responsible for providing Energy Imbalance Service unless they are a Bonneville Power Administration power customer receiving full or partial requirements energy service, which provides demand and shaping to cover load variations.

3. Some Load Entities* may be served by more than one transmission customer. If the Load Entity is a Transmission Customer it will be responsible for any Energy Imbalance. If the Load Entity is not a Transmission Customer, one of the Transmission Customers serving the Load Entity must be designated as the party responsible for Energy Imbalance Service.

   *Load Entity is a receiving party serving end-use loads from its distribution system.

B. Energy Imbalance Deviation Band

The Energy Imbalance deviation band is + or - 1.5% of the hourly scheduled amount of energy or + or - 2 MW, whichever is larger. For deviations within the deviation band, deviation accounts of the net monthly Energy Imbalances (the sum of positive and negative deviations from schedule for each Heavy Load Hour (HLH) and each Light Load Hour (LLH)) will be used for monthly energy reconciliation and billing of customers. Customers are responsible for keeping track of their imbalances and scheduling energy transactions with BPAT to bring the Energy Imbalance deviation accounts to zero at least once during each month. Deviations outside the deviation band will be settled monetarily as described in BPA's 2002 Transmission and Ancillary Services Rate Schedule.

C. Transmission Customer Selection of an Energy Imbalance Provider

At the time a Transmission Customer makes its initial request for Transmission Service with BPAT, it must indicate its provider for Energy Imbalance Service. BPAT is the default Energy Imbalance Service provider under the following circumstances: a) no election was made by the Transmission Customer; b) the designated provider fails to adequately perform as described in Section II or III of this business practice; and c) the supply arrangements the Transmission Customer has made are not comparable to purchasing Energy Imbalance from BPAT.

1. The Transmission Customer may make annual elections to obtain Ancillary Services from either BPAT or a third party, or to self-supply. Such election must be made over the OASIS or in writing by each July 1 for the ensuing Fiscal Year (October through September). The election shall be effective at the beginning of the following Fiscal Year provided the Transmission Customer and BPAT are able to implement the required equipment and system changes in a timely manner to accommodate the request.

2. Unless provisions for Dynamic Scheduling of the resource by BPAT already exist, it may take a year or more to put the required infrastructure in place. The customer is responsible for costs of the arrangements to put the required communications and control equipment and systems in place, in accordance with a project plan approved by BPAT that maintains North America Electric Reliability Council (NERC) and the Western Electric Coordinating Council (WECC) reliability requirements.

3. BPAT will notify the Transmission Customer no later than September 1 of the Fiscal Year in which the customer's election is made whether the proposed supply arrangements are comparable to purchasing Energy Imbalance from BPAT, and whether the customer's selection can be implemented.

D. Energy Imbalance Deviation Accounting

1. The Energy Imbalance amount is equal to the actual energy delivered to load minus the energy scheduled to load [load forecast] in each hour.

2. Actual energy delivered to load means kilowatt-hours of metered load. The measurement interval is a clock hour. (The 60-minute period ending at HH:00:00.)

3. Energy scheduled to load means the sum of energy delivery schedule arrangements or transmission schedules, which is equal to the load forecast.

4. Separate accounts will be maintained for HLH and LLH.

E. Energy Imbalance Deviation Reduction Schedules Within the Band

For each Transmission Customer serving load in the BPAT Control Area the following scheduling procedures for reducing the Energy Imbalance deviation account balances shall apply:

1. The Transmission Customer submits schedules to serve load in the BPAT Control Area. In addition, the Transmission Customer may submit a separately identified schedule for Energy Imbalance deviation reduction. Such schedules for the purpose of reducing the Energy Imbalance deviation accounts must be separately identified and submitted in accordance with the PTP Firm Pre-schedules timelines specified in BPAT's Business Practices on Reservations and Scheduling Procedures.

2. When the Transmission Customer has a positive Energy Imbalance deviation account balance, the customer may return energy to BPAT to reduce the customer's balance from a positive number toward zero. Scheduling energy from BPAT to the customer will reduce a negative account balance.

3. Subject to approval by BPAT, the Transmission Customer may schedule energy as many times as necessary during the month to bring the Energy Imbalance deviation accounts to zero. The Energy Imbalance deviation schedules to reduce the deviation accounts toward zero may not exceed one and one-half percent (1-1/2%) of the hourly transaction schedule/estimate to serve load or + or - 2 MW, whichever is larger. Within the band, imbalances will be tracked separately for HLH and LLH. Deviations must be returned in like hours (either HLH or LLH).

4. BPAT will determine the amount of energy delivered in HLH and in LLH and post the amounts in the Transmission Customer's deviation accounts. Failure to bring the Energy Imbalance deviation accounts to zero at least

once during each billing month will result in the Transmission Customer being charged BPAT's costs. BPAT's costs associated with failure to bring the accounts to zero will be determined by using the posted energy imbalance index price. When the customer fails to bring deviation account balances to zero during the month, they will be brought to zero at the end of the month by financial settlement. An average of the last seven days prices for the month when the deviation accounts were not brought to zero will be used to establish an HLH and LLH price for settlement of the account balances. Settlement charges for positive deviations will be 110% of HLH price times the HLH deviation account balance and 110% of LLH price times the LLH deviation account balance. Settlement credits for negative deviations will be 90% of HLH price times the HLH deviation account balance and 90% of the LLH price times the LLH deviation account balance.

E. Energy Imbalance Deviation Settlement Outside the Band

All deviations outside the band will be settled based on the energy index price, pursuant to BPA's 2002 Transmission and Ancillary Services Rate Schedules, Section II.D.1.b. One or more indices will be posted on the OASIS specifying the season or month each index will be used.

G. Intentional Deviation

Intentional Deviation is described in BPA's 2002 Transmission and Ancillary Services Rate Schedule. Listed below are examples of behavior that BPAT will deem to be Intentional Deviation. BPAT may find other deviations to be intentional as well.

1. Negative deviations for 72 or more consecutive hours.

2. Positive deviations for 72 or more consecutive hours.

3. Negative deviations for 3 or more consecutive days at a specific time of day.

4. Positive deviations for 3 or more consecutive days at a specific time of day.

5. Deviations for 5 or more consecutive periods (HLH, LLH, HLH, or LLH, HLH, LLH) that are positive during the HLH period(s) and negative during the LLH period(s).

Intentional Deviation may result in the following consequences:

1. No credit for negative deviation balances; and

2. A fee of 110% of the posted energy index rate will be applied to positive deviations.

II. Energy Imbalance Self-Supply

A. Conditions for Self-Supply of Energy Imbalance

Self-supply of Energy Imbalance allows a Transmission Customer that is a Load Entity to make available an amount of capacity to the BPAT Control Area, in return for assurance that the Transmission Customer will not incur Energy Imbalance Service for energy used in excess of the Transmission Customer's schedule to load, up to the amount of capacity made available (above the customer's schedule). The Transmission Customer may self-provide an amount of Energy Imbalance Service by meeting the following conditions:

1. The Transmission Customer must make available to the BPAT for deployment an amount of generation that it wishes to designate for self-supply of Energy Imbalance Service. The difference that may occur between scheduled and actual hourly load before BPAT's Energy Imbalance Service is used is equal to the amount of generation made available by the Transmission Customer for this purpose. If the amount made available is not sufficient to cover the difference between the actual and the scheduled amount of energy, or the self supply resource does not perform, BPAT's Energy Imbalance Service will be provided to cover the amount of deficiency in accordance with the BPA's 2002 Transmission and Ancillary Services Rate Schedule, or its successor, and posted business practices.

2. The amount made available must be in whole megawatts, and must be symmetrical. For example, to self-supply 6 MW of energy imbalance the self-supplier must make available an amount of capacity six megawatts higher than its energy schedule, and capable of being deployed to 6 MW lower than its schedule.

3. The amount of generation the Transmission Customer wishes to use to self-supply Energy Imbalance Service must be deployable by BPAT through electronic/automatic means to meet imbalance needs.

4. The failure of a self-supply resource to perform will be grounds for termination of the self-supply arrangement.

5. Energy used in the self-supply band will be netted against energy supplied by the self-supply resource, to arrive at a net self-supply deviation amount for each HLH and LLH. Settlement of this net deviation amounts is described in B., below.

B. Energy Imbalance Self-Supply Limitations, Failure to Perform, Notification of Suspension, and Settlement

1. Limitations

a. The amount of Energy Imbalance self-supply cannot exceed 6 % of the scheduled energy delivery to load or 2 MW, whichever is greater. This is four times the BPAT Energy Imbalance deviation band percentage in the rate schedule, and should allow adequate customer risk reduction while still assuring operational reliability and reasonably good scheduling practices.

b. BPAT will audit the generating resources from which a Transmission Customer self-supplies its Energy Imbalance for responsiveness to assure that the resource is accurately delivering the energy in response to the control signal sent by the BPAT Control Area. This will be done by correlating the hourly generator output and the BPAT control signal input. Six failures by a generating resource to accurately deliver the Energy Imbalance energy obligation may result in the suspension of the self-supply option for the remainder of the Fiscal Year.

c. BPAT will audit the schedules of Transmission Customers that self-supply Energy Imbalance from their share of the Slice resource to assure that the customer is accurately scheduling the capacity and delivering the energy. Six failures by a Transmission Customer self-supplying Energy Imbalance from Slice to accurately schedule and deliver the energy obligation may result in the suspension of the Transmission Customer's self-supply option for the remainder of the Fiscal Year.

2. Failure to Perform.

a. Failure to perform by a Transmission Customer who self-supplies Energy Imbalance from its generating resource shall constitute a strike as specified in section II.B.1.b.

b. Failure to perform by a Transmission Customer who self-supplies Energy Imbalance from its share of the Slice resource shall constitute a strike as specified in section II.B.1.c.

3. Notification Regarding Strikes and Termination of self-supply rights

a. BPAT will notify the Transmission Customer by email of a potential violation that may lead to a strike, including the date and time of the occurrence. BPAT will review the details of the potential strike with the customer prior to declaring a strike by the customer.

b. BPAT will notify the Transmission Customer by email no later than 20 days after the occurrence that a strike has been assessed.

c. Six strikes during a Fiscal Year will result in the suspension of a Transmission Customer's ability to self-supply or be a third-party provider of Energy Imbalance Services for the remainder of the Fiscal Year unless the customer can demonstrate it has taken corrective action has been taken to eliminate the reason for the suspension such as automation, employee training, or equipment upgrades

d. BPAT will notify the Transmission Customer by email of the effective date of the suspension of its right to self-supply Energy Imbalance for the remainder of the Fiscal Year.

4. Settlement

a. BPAT will determine the net amount of energy in HLH and in LLH and post the amounts in the Transmission Customer's deviation accounts.

b. Customers must schedule transactions to bring the self-supply energy accounts to zero once a month. Failure to do so may result in loss of the customer's energy credit, or charges for BPAT's costs. BPAT's costs are determined using the same methodology described in Section I.E.4.above.

5. Relief from Strikes

a. Under appropriate circumstances, BPAT may waive a strike to a Transmission Customer on a non-discriminatory basis. A Transmission Customer seeking a waiver must demonstrate good cause for relief, including a demonstration that the event which resulted in the strike

i. was the result of an equipment failure or outage that could not reasonably have been foreseen by the customer; or

ii. was inadvertent;

iii. could not have been avoided by the exercise of reasonable care; and

iv. was not part of a recurring pattern of conduct by the Transmission Customer.

C. Procedures for Self-Supply of Energy Imbalance

The Transmission Customer's self-supply arrangements shall be specified in an implementation document between BPAT and the Transmission Customer. If the Transmission Customer is self-supplying using its Slice resource, the self-supply

arrangements shall be specified in an implementation document between BPAT, BPAP, and the customer. The following parameters must be met in order for a Transmission Customer to self-supply Energy Imbalance:

1. The Transmission Customer must demonstrate it has the ability to self-supply with a qualified resource having the appropriately responsive performance, and required communication with BPAT's control centers at Dittmer and Munro in a manner that enables BPAT to conform to the criteria and standards specified by NERC, the WECC, and the Northwest Power Pool (NWPP).

2. The Transmission Customer must make available to BPAT for deployment (via a 2-way control signal) the megawatt amount of generation that it has designated for self-supply.

3. The resource designated for self-supply can be a system (aggregated to provide the requested response), a generation resource, or both, provided the resources respond to BPAT control in accordance with the customer's prescheduled participation factor (the sum of the Transmission Customer's participation factors is 100%). BPAT must be able to observe the performance of the self-supply resource(s) at all times.

4. The Energy Imbalance self-supply amount provided to BPAT cannot be used by the Transmission Customer for any other purpose.

5. The self-supply amount must be available, observable, and responsive when BPAT requests it via a control signal.

6. Changes to the hourly quantities of capacity to be set aside for self-supply of Energy Imbalance must be submitted to BPAT by the customer by 6 PM of the preschedule day. Real-time changes up to 30 minutes prior to the hour of BPAT's potential call for the self-supply amount will be allowed provided the Transmission Customer submits the changes via BPAT's automated web interface.

III. Third Party Supply Of Energy Imbalance

A. Transmission Customers may have a third party supply the Transmission Customer's Energy Imbalance. The Transmission Customer must arrange for the third party to place generation resources at BPAT's control, subject to the requirements described in Section II above. The supplier may be required to sign an agreement with BPAT describing the operation protocols associated with providing Energy Imbalance Service, and including other commercial terms and conditions as necessary.

B. Third-party supply from a Transmission Customer who is purchasing a Slice product from BPAP is currently not available.